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ABSTRACT

This paper integrates theory and research on the adolescent society into a comprehensive model of the status attainment process. The analysis reveals that a multidimensional conception of the adolescent role informs understanding of the dynamics of the status attainment process; that perceived peer status does not mediate antecedent effects on aspirations and attainments controlling on significant other influences; and that personality traits operate as selection mechanisms for peer group identifications, aspirations and attainments. The sample consists of a 17 year-old male age cohort of High school seniors studied in 1957 (N=442) and again 15 years later in 1972 (N=340). Estimates are based on structured equation models. (Author)

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ADOLESCENT PEER GROUP IDENTIFICATIONS AND THE STATUS ATTAINMENT PROCESS*

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ADOLESCENT PEER GROUP IDENTIFICATIONS AND THE STATUS ATTAINMENT PROCESS[1]

Recent status attainment studies (e.g., Sewell and Hauser, 1975) emphasize the social structural, psychological, and social psychological predictors and processes that affect educational attainment and the key role of education in the achievement process. The adolescent society literature (e.g., Coleman, 1961) focuses on how adolescents define peer status and the consequences of that subcultural status system for individual achievements. This paper estimates the parameters of a comprehensive model linking the components of these two research traditions.

The effects of family socioeconomic statuses on son's attainments were documented in Blau and Duncan's (1967) analysis of the American occupational structure and have established the general parameters that social psychological models seek to explain (Sewell, Haller and Portes, 1969; Sewell, Haller and Ohlendorf, 1970; Sewell and Hauser, 1972, 1975; Haller and Portes, 1973). The models specify that attainments are a function of a cognitive-motivational component formed by aspirations and social structural factors affecting their realization. The emphasis is on the individual's self-reflexive adjustment of his status aspirations to his perceived ability and performance and the impact of significant other expectations on individual aspirations and attainments. Otto and Haller (1976) compare estimates from three samples and note that the

process mediates about two-thirds of the effect of socioeconomic origins on educational attainment and virtually all of the effects on occupational attainment except for about half of the effect of father's occupational prestige. The model is less satisfactory as a specification of the earnings process where, generally, at least two-thirds of the socioeconomic origin effects remain unexplained. As a predictive model the specification accounts for as much as 62 percent of the variance in education, 51 percent of the variance in occupation and 12 percent of the variance in earnings.

The adolescent subculture literature augments understanding of the social psychological processes bearing on the development of aspirations and achievements. Coleman (1959, 1961) argues that schools have distinct value climates that influence behavior. The thesis has generated theory and research regarding the dimensionality of the adolescent society and the effects of specific peer culture identifications on aspirations and subsequent attainments. The dimensions of the adolescent society have ranged from Coleman's three--academic, athletic and social--to Spady's (1971) five: varsity sports, social clubs, performing arts, service-leadership, and other or no activity. The structure of the adolescent society, which is not informed by this paper, has also engaged theorists. Thus, Coleman argues that the principal dimensions, those representing athletic and academic values, are essentially orthogonal and provide alternate identifications within adolescent society although Rehberg and Schaefer (1968; see also Spady, 1970) specify that the two dimensions are causally related, that the nonacademic affects the academic.

Coleman (1959, 1961) reasons that high school demands for academic performance are met by group norms resisting the demands. Adolescents tend to value and reward performance on peer criteria (i.e., social) as opposed to institutional

criteria (i.e., academic) with the result that the academically promising are attracted to non-academic gratifications, a circumstance that contributes to neither the individual's nor the society's long term welfare. Studies have generally reported that high school role performance and peer recognition do affect educational aspirations. McDill and Coleman (1963) report that only among nonmembers of the "leading crowd" were educational plans associated with an interest in academics. In a subsequent study (McDill and Coleman, 1965) the peer effect was shown to be cumulative. By the end of the senior year peer prestige explains more variance in educational plans than does parental socioeconomic status.

Several studies have examined the relationship of athletics to peer status and educational aspirations. Demonstrating that athletic participation is positively associated with college expectations, Schafer and Rehberg (1970; see also Schafer and Armer, 1968; Picou and Curry, 1974) document the mediating effect of teacher and counselor encouragement (see also Weinberg and Shager, 1966; Snyder, 1972) and suggest that perceived peer status may also function as an intervening mechanism. The explanation is that positive appraisals enjoyed especially by athletes increase self-esteem which results in heightened aspirations (Rehberg and Schafer, 1968). Spreitzer and Pugh (1973) find support for the hypothesis, especially, in schools where athletics is highly valued.

Spady (1970, 1971) reasons, that extracurricular activities vary in purpose and prestige and provides evidence that activities that heighten educational aspirations do not necessarily equip individuals with the skills necessary for the realization of those goals. Moreover, Spady raises the possibility of selection effects, that individual characteristics may predispose some to compete for extracurricular roles which enhance their status and success orientations.

Snyder (1969), using an undifferentiated indicator of level of high school social participation, demonstrates a positive association with educational and occupational attainments five years later. Otto (1975), measuring extent of participation in extracurricular activities, demonstrates salutary effects on educational and occupational attainments and earnings fifteen years later.

In summary, past research on the adolescent society suggests: (1) a multidimensional conception of the adolescent role although two student cultures--one emphasizing scholarship and the other peer acceptance--have received most attention in the literature; (2) that extracurricular activities may differentially affect aspirations and attainments; (3) that a psychological intervening mechanism--perceived peer status--mediates peer group effects on aspirations; and (4) the possibility of social selection effects based on individual characteristics other than mental ability. The following section incorporates these relationships into an elaborated social psychological model of the status attainment process.

The Conceptual Model

We specify a structural equations model that sequentially incorporates the effects of parental socioeconomic statuses, individual characteristics, adolescent peer group identifications, significant other influences and perceived peer status, and aspirations on education, occupation, and earnings. The conceptual model is heuristically displayed in Figure 1.

Figure 1 about here

The reduced form model examines the effects of socioeconomic origins on attainments, the degree of status transmission. Standard indicators are employed: father's occupational prestige and parents' levels of education. Rural-urban residency effects are also examined. In their functional ordering education, occupation and earnings indicate attainments. The conceptual scheme preserves the centrality of aspirations as a principal mechanism in the status attainment process.

The social psychological model (e.g., Sewell and Hauser, 1975) specifies two intervening mechanisms linking socioeconomic origins and aspirations. Education is differentially valued by socioeconomic status and, therefore, social origins are related to academic performance. The respondent's academic performance, in turn, is evaluated by significant others who communicate expectations that reinforce the values associated with the respondent's socioeconomic origins. The youth also reflects upon his grades and adjusts his aspirations to his past levels of academic performance (Woelfel and Haller, 1971). Preserving these elements of the social psychological model we propose a more complicated scenario which also takes into account the adolescent's perceived peer status, the multidimensionality of the adolescent role, and the possible operation of selection by individual characteristics into adolescent roles and subsequent aspiration and attainment levels.

Following Spady (1970, 1971; see also Spreitzer and Pugh, 1973), we specify peer status as a linkage whereby adolescent role performance is translated into higher educational aspirations. A long tradition of social psychological theory and research (Sherif and Sherif, 1956:280-331) maintains that adolescent attitudes reflect interactions with others, even as a second tradition maintains that significant others take cues for appropriate expectations from the adolescent (Haller and Woelfel, 1972). In providing for the operation of both the

psychological and the social-psychological mechanisms without specifying a causal structure between them we are able to estimate the independent and additive effects of both. These analyses seek to confirm the reported peer status effect on educational aspirations and the lack of effect on educational attainment. Further, the analysis will determine whether the effects are independent of significant other influences and whether the pattern generalizes to occupational aspirations, occupational attainment and earnings.

Kemper (1968:32) defines a reference group as one "which the actor takes into account . . . in the course of selecting a behavior from among a set of alternatives, or in making a judgment about a problematic issue."[2] Its function is to orient the individual attitudinally and behaviorally. While characterizing the adolescent society as nonchalant in scholastic matters, irresponsible and hedonistic, Coleman (1959:330) suggests that subgroups can form which "insulate" (1959:343) their members against the larger group, "rescue" (1959:330) them from the frivolous activities of their fellows and engage a few who accept adult values and have their sights set on long range goals. This analysis explores whether there are extracurricular subgroups other than athletics that are associated with levels of aspiration and/or attainment. Following Spady (1971) peer group identifications are categorized in terms of academics, athletics, service-leadership, the performing arts and others. In addition we provide for primary associations with vocational farm and vocational academic activities. The distinction between farm and academic vocational groups provides alternate mechanisms by which the effects of rural-urban residency are likely to influence aspirations and attainments. While vocational activities may be less visible forms of involvement they also provide status and prestige

and facilitate the development of skills and attitudes that provide a basis for subsequent achievement (Spady, 1971).

Finally, we examine the possibility that the relationship between extracurricular involvements, perceived peer status and aspirations may reflect a self-selection process based on personal characteristics (Spady, 1971). Sewell and Hauser (1975) specify an intervening role for mental ability. We provide for two additional personality traits, adventurousness and nervous tensions. Cattell (1950:8-9) associates adventurousness with socio-emotional (friendly) traits, a factor which selects leaders and predicts suitability for occupations requiring interpersonal skills. Nervous tensions, by comparison, are a disfunctional characteristic. The general picture is that of the hypertensive individual (Cattell, 1950:11). We inquire whether these personality dimensions facilitate/encumber social participation and perceived peer status. Moreover, as relatively stable personality characteristics over time they are also likely to affect aspirations and attainments.

In summary, we propose an elaborated social psychological explanation of the status attainment process. We specify multiple peer group identifications in an effort to better understand the consequences of alternate forms of extracurricular involvements on aspirations and attainments. We examine the mediating role of perceived peer status as a mechanism by which family socioeconomic origins, individual characteristics and adolescent role performance affects aspirations and attainments. We estimate the effect of individual characteristics on aspirations and attainments and calculate the extent to which personality traits operate as selection mechanisms within the status attainment process.

Data, Variables and Methods

The data were gathered from 17-year-old males who were enrolled in Lenawee County, Michigan, high schools in 1957 and participated in an early career follow-up study in 1972, fifteen years later. The first wave provided data on 88 percent of the entire age cohort. Of the original 442 respondents 340 participated in the follow-up (79 percent of the eligible 1957 participants).[3]

Background socioeconomic statuses enter the model as exogenous variables. Father's occupation is coded into the Duncan Socioeconomic Index. Father's education and mother's education are scored for years of formal education: 0 for less than 8 grades completed to 5 for a college degree or more formal education. Farm origin is a dummy variable. Respondents who reported that their fathers were farmers (1960 census occupation code) were scored 1, otherwise zero.

Concerning individual characteristics, mental ability is measured with the Cattell IPAT Test of G-Culture-Free-Scale 3A (Cattell and Cattell, 1950). Other characteristics are measured by two subtests of the Cattell 16 Personality Factors Test, adventurous versus timid (Factor H) and nervous tensions (Factor Q4).

Academic performance, the first dimension of adolescent role performance, is measured by high school grade point average based on a 4 point scale. Six extracurricular dimensions are conceptually defined. Athletics consists of reported participation in sports or membership in varsity lettermen clubs. Those reporting participation in band, orchestra, chorus and dramatic type activities were grouped under performing arts. Service and leadership consists of student government, class offices, key and service clubs. Two forms of vocational activities were differentiated: farm vocational consists primarily of

4-H and FFA involvements whereas academic vocational includes participation in language and science clubs, honor societies, and the like. Other is a residual category dominated by leisure and recreation type activities and hobbies. Dummy variable coding was employed in scoring participation in extracurricular activities.

The study employs three indicators of significant other effects. With respect to perceived parental educational encouragement respondents were asked to what extent their mother (or father) had given encouragement. Fixed response alternatives ranged from 0 for "quit school and go to work" to 4 for "strongly encouraged me to continue." Responses for mother's and father's encouragement were summed yielding a score ranging from 0 to 8. Best friends' educational plans are indicated by the average aspiration score of up to five best friends who were present in the sample. Coding was identical to that for father's and mother's education. Girl friend's educational encouragement was operationalized by a question in the follow-up study inquiring about wife or girl friend's educational encouragement. Responses were scored 0 for encouragement to "not get more," 1 for "didn't say" and 2 for "get more." Peer status consists of a 21-item index of agree-disagree responses to questions selected from the California Test of Personality relating to the respondent's perception of his acceptance by his peers.

Educational aspirations were scored 0 for none beyond high school to 4 for seven or more years of college. Occupational aspirations were measured by the eight-item Occupational Aspiration Scale (Haller and Miller, 1972).

The three forms of attainment appear in their functional ordering. Education refers to the number of formal years of education completed. Occupation

was coded into the Duncan Socioeconomic Index. Earnings refers to the respondent's report of personal income for the previous year, 1971. The attainment measures were taken in the 1972 follow-up study. Unless otherwise indicated, all other measures were made in the 1957 original study.

Zero-order correlations, means and standard deviations for all indicators are reported in Table 1.

Table 1 about here

Results

Before estimating the structural equations model we tested the assumption of linearity comparing means of the dependent variables within categories of each predictor variable (see Blalock, 1972:408-413). The results indicate that the assumption of linearity is justified, which is consistent with findings based on similar exercises by Gasson, Haller and Sewell (1972) and Wilson and Portes (1975).

Table 2 presents estimates for the causal structure among the common

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Table 2 about here

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antecedents of aspirations and attainments.[4] The effect of social origins on individual characteristics is very modest; but individual characteristics do predict peer group identifications. This raises the possibility that persons with high aspirations may also self-select into particular adolescent roles.[5] Of the individual characteristics respondent's mental ability is most influenced

by origin statuses; and of the peer group identifications academic performance and participation in vocational farm activities are most influenced by social origins and individual characteristics. The analysis suggests that for rural youth there exists a distinct pattern of peer group identifications which may have a bearing on their success orientations. The relationship between mental ability and all forms of extracurricular activities except the other category may reflect the operation of high school policies which require satisfactory academic performance as a prerequisite for participation in extracurricular activities (Otto, 1975). The estimates further reveal that those who score highest on mental ability tests are not interested in agricultural-vocational activities. Not unexpectedly it is the rural residence who participate in agricultural activities. By comparison youth from socioeconomically advantaged families pursue a second set of activities: well-educated mother's prompt their sons to be scholastically oriented in both curricular and extracurricular activities (to get good grades, to be involved in the performing arts, to pursue academically oriented vocational activities); and sons of more prestigeous fathers monopolize the service-leadership positions. These findings are consistent with the traditional middle class emphasis on education and support Coleman's thesis that coming from "the right kind of family" is important for membership in the "leading crowd." The analysis raises the possibility that peer group associations may constitute a neglected reference group mechanism whereby social origin influences are translated into attainments.

Past research has hypothesized the operation of a social psychological (Sewell and Hauser, 1975) and a psychological mechanism (Rehberg and Schafer, 1968; Spady, 1970, 1971) whereby the effects of adolescent role performance

influence aspirations. Our data confirm a relationship between perceived peer status and both academic performance and athletic prowess; but one's self-perception is not independent of his personality traits. Being adventurous by disposition is positively related to perceived peer status and nervous tensions have a depressing effect. Thus, a substantial proportion of the effect of academic and athletic performance on perceived peer status is due to correlated exogenous variables and common antecedents: 62 percent of the effect of academic performance is direct and nonspurious (half of the remaining effect is due to adventurousness and nervious tensions), as is 48 percent of the effect of athletics (of which one-third of the remaining effect is due to personality traits). These findings confirm the hypothesis that individual characteristics select individuals into adolescent roles and prompt them to view themselves positively from the perspective of their peers (Spady, 1971).

Social psychological theory (Otto and Haller, 1976) holds that significant other's evaluate a youth's past performance in communicating their expectations. Our findings indicate that parents not only assess the youth's academic performance, but also his participation in athletics and his personality dispositions. Youths who claim friends with higher than average educational plans are themselves better students and athletically inclined. They also tend to be rural residents. Girl friends interpret nearly any form of curricular and extracurricular performance as a basis for educational encouragement but totally disregard the respondent's personal characteristics and, additively, his social origins. Of the effects of academic performance on significant other influences from one- to two-thirds is direct and nonspurious as is half of the effect of athletics on parents' and friends' influence (and 94 percent of the effect on girl friend's educational encouragement). Only with respect to the effect of athletics on parental educational encouragement is there the possibility that

the two personality traits have a sizeable spurious effect on the relationship (as much as 17 percent is due to common causes and unanalyzed correlations). Those analyses demonstrate that only half of the effect of adolescent role performance on the two mechanisms, perceived peer status and significant other influences, is direct and nonspurious; and that common associations with individual characteristics accounts for a sizeable component of the effect on perceived peer status.

The broad outline of the causal structure among the common antecedents of aspirations and attainments can now be sketched. That families use the educational system in different ways is evident in that the socioeconomically advantaged channel their son's interests into traditional academically related curricular and extracurricular pursuits whereas farm families encourage participation in agriculturally related vocational activities. Academic and athletic performance affect both a youth's perception of his status among his peers and the educational encouragement given by significant others. In addition, girl friends interpret performance on nearly any adolescent role dimension as a sign of academic promise. The pattern of peer group identifications is not only affected by family social structural considerations but also by individual characteristics. Similarly, a youth's perception of his peer status is also affected by his personality traits. Given this understanding of the causal structure of the antecedents of aspirations we examine the development of aspirations with particular emphasis on the effects of adolescent peer group identifications in the process.

Aspirations

Educational and occupational aspirations are key mechanisms in the status attainment process. Background statuses alone account for 20 percent of the variance in educational aspirations (data not reported here). The model mediates from nearly half to more than three-fourths of the total effects of parental statuses. The fully specified model accounts for 54 percent of the variance in educational aspirations (Table 2).

Our model reveals that the personality trait, adventurousness, has an independent effect on educational aspirations. Most (75 percent) of that effect is direct. Half of the association between academic performance and educational aspirations is direct and nonspurious. Second, controlling on significant other effects, perceived peer status has a direct effect on educational aspirations; but the effect is negative which conflicts with the sign of the perceived peer status effect reported in previous research (Spreitzer and Pugh, 1975). Spady (1970:69) argued that athletes have; high educational expectations because their enhanced popularity stimulates a desire for further recognition through college attendance. We find that the explanation is unnecessary; for athletics directly affects educational aspirations only when the model is under specified--i.e., when provision has not been made for significant other influences. The model as specified (incorporating both significant other and perceived peer status effects) mediates 27 percent of the effect of academic performance on educational aspirations. A semi-reduced form model specifying only perceived peer status as an intervening mechanism mediates 10 percent of the effect of academic performance on educational aspirations; and the alternative specification, employing only the significant other linkage, mediates 33 percent of the effect.

Operating as the sole mechanism, perceived peer status increases the predictive power of the model by less than half of 1 percent whereas significant other influences increase the predictive power of the model by 7 percent. We find, then, that the perceived peer status mechanism contributes little to either the explanatory or the predictive power of the model for educational aspirations.

Social origins account for 15 percent of the variance in occupational aspirations. Our model mediates virtually all of the effect of father's occupation and mother's education and a fourth of the total effect of father's education. The fully specified model accounts for 49 percent of the variance in occupational aspirations (Table 2).

Adventurousness also has a direct effect on occupational aspirations; more than half (57 percent) of the effect is explained by intervening processes. Athletics also has an effect on occupational aspirations; 46 percent is nonspurious and direct. None of the athletics effect is mediated by perceived peer status operating as a sole mechanism; but a third is mediated by significant other influences which, again, leaves athletics without a significant direct effect on occupational aspirations when controlling on significant other influences. Participation in agriculturally related vocational activities depresses occupational aspirations inasmuch as it reinforces interests in farming.

With respect to the issues addressed in this stage of the analysis we conclude that individual characteristics, notably adventurousness, has a total effect on aspirations that is largely unexplained by the intervening processes. About half of the effect of academic performance on educational and occupational aspirations is spurious.[6] Significant other influence is a much more effective mechanism than is perceived peer status in mediating peer group identification effects on aspirations; indeed, controlling on significant other influence,

perceived peer status contributes to neither the explanatory nor the predictive power of educational aspirations. Finally, the same general pattern of effects applies to occupational aspirations as to educational aspirations, with one notable exception: being involved in agricultural vocational activities significantly depresses the level of occupational aspirations. This finding further supports the observation that families use the school system differently. Being of rural origins for example, is strongly associated with participation in agriculturally related vocational activities which has a depressing effect on level of occupational aspirations. We interpret this finding as indication that a higher proportion of rural youth aspire to farming which is a low prestige occupation.

Education, Occupation and Earnings

Table 3 displays estimates for the processes of educational and occupational

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Table 3 about here

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attainments and earnings. Analyses reported elsewhere (Otto and Haller, 1976) confirm that estimates for the social psychological model of status attainment based on the present sample largely conform to those previously reported for the Wisconsin data (Sewell and Hauser, 1975) and the Explorations in Equality of Opportunity data (Alexander, Eckland and Griffin, 1975). We have indicated how the present specification differs from the social psychological model and comparisons of estimates will be made where these assist in understanding the status attainment process. We here address two questions. First, does the more elaborate specification of individual characteristics and peer group identifications improve our understanding of the process of status transmission?

Second, does the psychological mechanism, perceived peer status, serve a mediating function independent of significant other influences?

Our specification does not greatly improve the explanatory power of the social psychological model (see Otto and Haller, 1976) of the educational attainment process, though it does alter the estimates for the internal processes. As examples, the specification accounts for 9 percent more of the effect of father's occupation on son's education and 8 percent less of the effect of father's education. Incorporating adventurousness and nervous tension increases the explanatory power of the first stage personality mechanism by about a fourth,[7] and the peer group identifications improve the mediating effect of the within-school processes by 6 to 18 percent. Adventurousness adds about 3 percent to the predictive power of estimates for the social psychological model and the more elaborate specification of peer group identifications raises the predictive power of the model 7 percent above estimates of the social psychological process (Otto and Haller, 1976). Although neither athletics nor other activities function as mechanisms in the status transmission process, both have an independent impact on educational attainment which indicates that net of academic performance, performance in extracurricular roles also predicts educational attainment. Finally, net of significant other influences, perceived peer status mediates no more than 2 percent of social origin influences on educational attainment.

In summary, the model is an efficient explanation of the educational attainment process explaining 92 percent of the effect of father's occupation, 49 percent of father's education and 83 percent of mother's education. The model predicts 65 percent of the variance in educational attainment. Our findings reveal that perceived peer status does not mediate peer group identification effects to educational attainment net of significant other influences, and

that both individual characteristics (notably adventurousness) and peer group identifications (notably academic vocational activities) have a mediating role in the status transmission process. Participation in athletics and other activities also predict further educational attainment. These relationships hold controlling on the social psychological processes reported in previous research (Otto and Haller, 1976).

The specification alters the explanatory and predictive power of the social psychological model for occupational attainment only modestly. Thus, for example, the fully specified model explains 11 percent more of the effect of father's occupation on son's (a 24 percent increase in the effect explained by the social psychological model) and increases the predictive power of the model by 2.3 percent (a 5 percent increase in the variance accounted for by the social psychological model). The additional personality traits do not affect occupational attainment, but peer group identifications increase the variance accounted for by 5 percent over that predicted by academic performance alone. Participation in vocational farm activities has a largely unmediated negative effect on occupational attainment (75 percent is direct) although an earlier effect on aspirations was also noted. Aspirations explain only 26 percent of the vocational farm activity effect on occupational attainment, however, which suggests that knowledge and skills acquired in the extracurriculum may be unspecified but also important linkages. Participation in academic vocational activities has a significant positive effect on occupational attainment but the effect is mediated primarily by significant other influences rather than aspirations, as was the case with educational attainment. These findings provide additional evidence that farm families and high prestige families employ different

educational strategies. Farm families orient their sons to agriculturally related extracurricular activities which directly influence occupational attainments--i.e., they inculcate appropriate motivations, skills and knowledge--and have an indirect influence via depressing levels of occupational aspirations. Socioeconomically advantaged families, by comparison, channel their sons' interests and activities into more traditional educational pursuits including academic vocational activities which affect occupational attainment indirectly via significant other influences. These relationships obtain controlling on social psychological processes previously specified.

Social psychological models are least successful in explaining and predicting early career earnings. The present specification explains 9 percent more of the effect of mother's education on earnings than does the social psychological model and accounts for 19 percent of the variance in earnings (which is a 58 percent increase in variance accounted for by the social psychological specification.

Inspection of Table 3 reveals that adventurousness, which influences education, also affects earnings. Taking personality dispositions into account increases the predictability of individual characteristics on earnings about 3 percent. Although high school academic performance does not affect earnings, athletics, vocational farm and academically oriented vocational activities each have a positive effect net of socioeconomic origins and individual characteristics. About half of the effect of adventurousness is mediated by peer group associations; but the significant effects of peer group identifications on earnings are largely direct (at least 74 percent of the effect is unexplained by intervening mechanisms). Incorporating peer group identifications into the estimating equations increases the variance accounted for in earnings by 58

percent over that accounted for by the social psychological model of the status attainment process (Otto and Haller, 1976). As a predictive model the present specification, which explains 19 percent of the variance in earnings, is clearly one of the better specifications reported in the literature.

Two questions have been addressed in this phase of the analysis: whether the specification of individual characteristics and peer group identifications informs our understanding of the status attainment process; and whether perceived peer status, a psychological mechanism, has a mediating function independent of significant other influences, of the social psychological mechanism. We find that the more elaborate specifications alter the estimates for the internal dynamics of the attainment process. Specifically, the personality trait, adventurousness, has an effect on both educational attainment and earnings. It affects both by way of two peer group identifications, athletics and academically oriented vocational activities. It also affects educational attainment via significant other influences. Peer group identifications--namely, athletics, academically related vocational activities and other activities--influence occupational attainment controlling on background statuses, individual characteristics and academic performance. We find that perceived peer status adds nothing to either the explanatory or the predictive power of models net of significant other effects.

Conclusions

Drawing upon the literatures on the adolescent society and the status attainment process, we have specified and estimated a structural equations model which provides for the role of personality characteristics, adolescent

peer group identifications and perceived peer status in the aspiration formation and socioeconomic attainment process. Our primary objective was to better understand the internal dynamics of the achievement process. Taking the social psychological theory of the status attainment process as a given, we examined whether peer group identifications differentially affect aspirations and attainments, whether perceived peer status operates as a psychological mechanism by which the influences of social origins, individual characteristics and adolescent peer group identifications are transmitted to aspirations and attainments, and whether personality dispositions are a source of spurious attributions within the process.

The analysis reveals that individual characteristics other than mental ability and within-school processes other than academic performance contribute to the explanatory and predictive power of the aspirations and attainment models. Further, incorporating perceived peer status as an intervening variable improves neither the explanatory nor the predictive power of the model controlling on significant other influences. Finally, we have provided evidence supporting the hypothesis that selection on personality characteristics accounts for a spurious component in the relationship between peer group identifications and aspirations and attainments.

Our hypotheses were framed within the context of the social psychological model of the status attainment process and our findings are best interpreted within that context. Whereas status attainment theory and research has largely restricted its focus on within school processes to performance on the traditional academic role dimension, the literature generated by the adolescent society research examines a multidimensional conception of the student role.

Our analysis suggests that families "use" high schools differently depending upon their socioeconomic status. Specifically, socioeconomically advantaged families channel the interests and efforts of their children to the more traditional academic pursuits: scholastic excellence, service-leadership roles, performing arts and academically oriented vocational activities. These activities stress the humanities, broaden the youth's cultural exposure and deepen his aesthetic appreciation. Farm families, by comparison, encourage participation in agriculturally oriented activities which have pronounced pragmatic effects: they lower occupational aspirations and attainments and they increase earnings. We interpret the inverse relationship with aspirations and attainments as evidence that this form of extracurricular participation promotes interest in farming, which is a comparatively low prestige occupation. However, while depressing occupational aspiration and attainment levels, vocational farm activities significantly enhance earnings. This suggests that the extracurriculum is a significant socialization agency for rural youth. Controlling on socioeconomic background, mental ability and academic performance, and significant other influences, agricultural related vocational activities mold aspirations, significantly affect occupational attainment and provide a distinct earnings advantage. While it has been argued that high schools are not providing students with an in-depth understanding of the world of work (DeFleur and Menke, 1975), these findings indicate that in the extracurriculum knowledge and skills are being learned that have distinct long-term economic consequences for participants.

The role of the extracurriculum in the aspiration formation and attainment process is further emphasized by the fact that academically related vocational activities also affect educational and occupational attainments and earnings.

With respect to educational and occupational attainment, performance on the academic dimension is more important than is involvement in either form of vocational activity; but with respect to earnings, participation in vocational activities and athletics has more effect than academic performance. At least 74 percent of these effects are direct and not explained by successive stages of the model. In summary, mental ability and academic performance are key mechanisms in the status attainment process, but they do not exhaust the within-school effects on aspirations and attainments for, additively, the extracurricular effects are as strong on educational and occupational attainments and, in the case of earnings, they are stronger. The data indicate that a narrow academic definition of education and the function of the school may be at variance with the perspective of those who "send their children" or "get an education" and who benefit from the extracurriculum at least as much as they do from the curriculum. This is not to gainsay that the kind of curriculum in which the youth is enrolled, e.g., pre-college or agricultural, may make a significant difference on his attainments. Indeed we fully expect that there is a strong relationship between kind of curriculum and kinds of extracurricular activities. Thus, our findings may reflect what is learned in complementary combinations of curricular and extracurricular pursuits. Future analyses of within-school processes should examine the effects of enrollment in specific academic programs.

We have suggested that a two-track system differentiates the status transmission process for farm from the socioeconomically advantaged families. The difference is evident in not only the kind of extracurricular activities in which the youth engage, but also in the mechanisms by which the peer group

identifications affect eventual attainments. Specifically, the effects of participation in farm related vocational activities on aspirations and attainments are largely unmediated by succeeding processes including significant other influences; whereas the effects of academic performance and participation in the academically oriented extracurricular activities are mediated in part by significant other influences. This indicates that significant others (except for girl friends) tend to reflect favorably on academically related performance and activity but do not give educational encouragement based on participation in farm related vocational activity. It is possible, however, that significant others may give occupational encouragement based on a different set of evaluative criteria among which participation in vocational activities may be especially important. Future analyses should differentiate between significant other educational and occupational encouragement. We note in this regard that although Blau and Duncan (1967) reasoned that occupational prestige is the preferred single item indicator of socioeconomic status, social psychological explanations of the status attainment process have, in fact, focused on the educational attainment process and the key role of education in the occupational attainment process. A focus on occupational attainment, while allowing for the intervening role of educational attainment and related processes, requires consideration of vocational activities among the within-school effects and consideration of occupational encouragement among the significant other influences.

Our findings dismiss the suggestions of Spady (1970, 1971) and Spreitzer and Pugh (1973), that perceived peer status is a psychological mechanism by which participation in extracurricular activities (athletics) affects educational aspirations. We find that models which incorporate the effects of

significant other influences are largely unaffected by the perceived peer status linkage; and, as alternative specifications, significant other influences are more powerful predictors of variance and more efficient explainers of the aspiration formation and socioeconomic attainment process than is peer status.

Finally, our analyses reveal that within the structure of the status attainment process, personality characteristics other than mental ability do make a small but significant difference. Adventurousness affects educational aspirations, occupational aspirations, educational attainment and earnings, controlling on all other psychological, social psychological and social structural variables. Further, adventurousness is associated with all but two peer group identifications and with perceived peer status and with significant other influence. This suggests that reference groups and significant others take an individual's personality traits into account in communicating their expectations to him and that the individual also assesses these traits in judging his standing among his adolescent peers and planning for his educational and occupational career. Weber (1946) among others has argued that particular personality types are best suited for employment in bureaucracies. Our findings indicate that ceteris paribus, society awards higher educational certification and earnings (within occupations) to those who are adventurous.

An important caveat should be noted. These analyses suggest interaction effects between residency and forms of extracurricular participation. Whether farm families do in fact use extracurricular programs in different ways than do socioeconomically advantaged families is an issue that can be satisfactorily

addressed only by comparing subsample metric coefficients. Moreover, there remains the possibility that the effects we have noted may represent differences between high schools. Between-school effects can be eliminated by constructing within-school scores for extracurricular activities. These analyses are in progress.

In conclusion, our findings indicate that the dynamics of aspiration formation and socioeconomic attainment are more complex than previous studies have indicated and that there is no support for the hypothesis that perceived peer status mediates reference group effects on aspirations (and attainments) controlling on significant other influences. We have argued that past research has focused on educational attainment to the exclusion of some variables and processes logically linked to occupational attainment and possibly earnings, e.g., academic curriculum, vocational activities and significant other occupational encouragement. We plan to examine these issues in future analyses.

FOOTNOTES

1. This research has been supported by the United States Office of Education (1958-61); by National Science Foundation grant GS29031 (1971-74); by the Manpower Administration, U.S. Department of Labor, Grant 91-55-72-49 (1972-73); by the Grant Foundation, Inc. (1974-75); by the University of Wisconsin (Madison), Michigan State University (East Lansing) and Washington State University (Pullman) Agricultural Experiment Stations; and by the Social Research Center, Washington State University (Pullman).

2. We differ with Kemper's definition in labelling individual influences as significant other influences, following Haller and Woelfel (1972). Note that Kemper's definition of reference groups includes a "group, collectivity, or person which the actor takes into account" (Kemper, 1968:32).

3. Four of the 1957 respondents were excluded from the analysis because of invalid data and 8 were known to be deceased leaving a total of 430 eligible respondents in 1972.

4. Readers who are not conversant with the distinctions between associations and effects, or with the decomposition of total effects into direct and indirect components, may wish to consult Alwin and Hauser (1975).

5. We use the qualifier "significant" only in a statistical sense. Statistical significance is defined by the conventional criterion that the absolute size of the coefficient must be at least twice as large as its standard error.

6. A correlation coefficient is a summary measure of relationship of all of the components that contribute to an association between two variables: direct effects, indirects effects, association due to joint dependence on antecedent variables and association due to the correlation between exogenous variables. We follow Alwin and Hauser (1975:40) in defining spurious correlation as the components of association due to common dependence on antecedent variables and correlated causes.

7. Forty percent of the total effect of father's occupation as opposed to 32 percent is mediated by individual characteristics as is 24 percent of the total effect of mother's education as opposed to 17 percent.

REFERENCES

Alexander, Karl, Bruce K. Eckland and Larry J. Griffin
1975 "The Wisconsin model of socioeconomic achievement: A replication." American Journal of Sociology 81 (September): 324-342.

Alwin, Duane F., and Robert M. Hauser
1975 "The decomposition of effects in path analysis." American Sociological Review 40 (February):37-47.

Blalock, Hubert
1972 Social Statistics. Second Edition. New York: McGraw-Hill Book Company.

Blau, P. M. and O. D. Duncan
1967 The American Occupational Structure. New York: John Wiley.

Cattell, R. B., and A. K. S. Cattell
1950 "Test of G-culture free scale 3A." Institute for Personality and Ability Testing. Champaign, Illinois.

Coleman, James S.
1959 "Academic achievement and the structure of competition." Harvard Educational Review 29 (Fall):330-351.

1961 The Adolescent Society. New York: The Free Press.

DeFleur, Lois B., and Ben A. Menke
1975 "Learning about the labor force: Occupational knowledge among high school males." Sociology of Education 48 (Summer):324-345.

Gasson, Ruth M., Archibald O. Haller, and William H. Sewell
1972 Attitudes and Facilitation in Status Attainment. Arnold M. and Carolyn Rose Monograph Series in Sociology. Washington The American Sociological Association.

Haller, Archibald O. and Irwin W. Miller
1972 The Occupational Aspiration Scale. Cambridge: Schenkmen Publishing Company, Inc.

Haller, Archibald O. and Alejandro Portes
1973 "Status attainment processes." Sociology of Education 46 (Winter):51-91.

Haller, Archibald O., and Joseph Woelfel
1972 "Significant others and their expectations: Concepts and instruments to measure interpersonal influence status aspirations." Rural Sociology 35 (December):591-621.

Kemper, Theodore D.
1968 "Reference groups, socialization and achievement." American Sociological Review 33 (February):31-45.

McDill, Edward L., and James Coleman
1963 "High school social status, college plans, and interest in academic achievement: A panel analysis." American Sociological Review 28 (December):905-918.

1965 "Family and peer influences in college plans of high school students." Sociology of Education 38 (Winter):112-26.

Otto, Luther B.
1975 "Extracurricular activities in the educational attainment process." Rural Sociology 40 (Summer):162-176.

Otto, Luther B. and Archibald O. Haller
1976 "The social psychological view of the status attainment process: A comparison of estimates." Unpublished manuscript.

Picou, J. S. and E. W. Curry
1974 "Residence and the athletic participation-educational aspiration hypothesis." Social Science Quarterly 55 (December):768-776.

Rehberg, Richard A., and Walter E. Schafer
1968 "Participation in interscholastic athletics and college expectations." American Journal of Sociology 73 (May):732-40.

Schafer, Walter E. and J. Michael Armer
1968 "Athletes are not inferior students." Transaction 5 (November): 21-26, 61-62.

Schafer, Walter E. and Richard A. Rehbert
1970 "Athletic participation, college aspirations and college encouragement." Pacific Sociological Review 13 (Summer):182-186.

Sewell, William H., Archibald O. Haller, and George Ohlendorf
1970 "The educational and early occupational attainment process: Replications and revision." American Sociological Review 35 (December):1014-1027.

Sewell, William H., Archibald O. Haller, and Alejandro Portes
1969 "The educational and early occupational attainment process." American Sociological Review 34:82-92.

Sewell, William H. and Robert M. Hauser
1972 "Causes and consequences of higher education: Models of the status attainment process." American Journal of Agricultural Economics 54 (December):851-861.

Sewell, William H. and Robert M. Hauser
1975 Education, Occupation, and Earnings: Achievement in the Early Career. Academic Press.

Sherif, Muzafer and Caroline W. Sherif
1956 An Outline of Social Psychology. Revised Edition. New York: Harper and Brothers.

Snyder, Eldon E.
1969 "A longitudinal analysis of the relationship between high school student values, social participation, and educational-occupational achievement." Sociology of Education 42 (Summer): 261-270.

1972 "High school athletes and their coaches: Educational plans and advice." Sociology of Education 45 (Summer):313-325.

Spady, William G.
1970 "Lament for the letterman: Effects of peer status and extra-curricular activities on goals and achievement." American Journal of Sociology 75 (January):680-702.

1971 "Status, achievement, and motivation in the American high school." School Review (May):379-403.

Spreitzer, Elmer, and Meredith Pugh
1973 "Interscholastic athletics and educational expectations." Sociology of Education 46 (Spring):171-182.

Stinchcombe, Arthur L.
1965 Rebellion in a High School. Chicago: Quadrangle Books.

Weber, Max
1946 From Max Weber. Translated and edited by Hans H. Gerth and C. Wright Mills. New York: Oxford University Press.

Weinberg, Carl, and Rodney Skager
1966 "Social status and guidance involvement." Personnel and Guidance Journal (February):586-590.

Wilson, Kenneth L., and Alejandro Portes
1975 "The educational attainment process: Results from a national sample." American Journal of Sociology 81 (September):343-363.

Woelfel, Joseph and Archibald O. Haller
1971 "Significant others, the self-reflexive act and the attitude formation process." American Sociological Review 36 (February): 74-87.

FIGURE 1.

SCHEMATIC DIAGRAM OF A RECURSIVE MODEL OF ADOLESCENT PEER GROUP IDENTIFICATIONS IN THE STATUS ATTAINMENT PROCESS

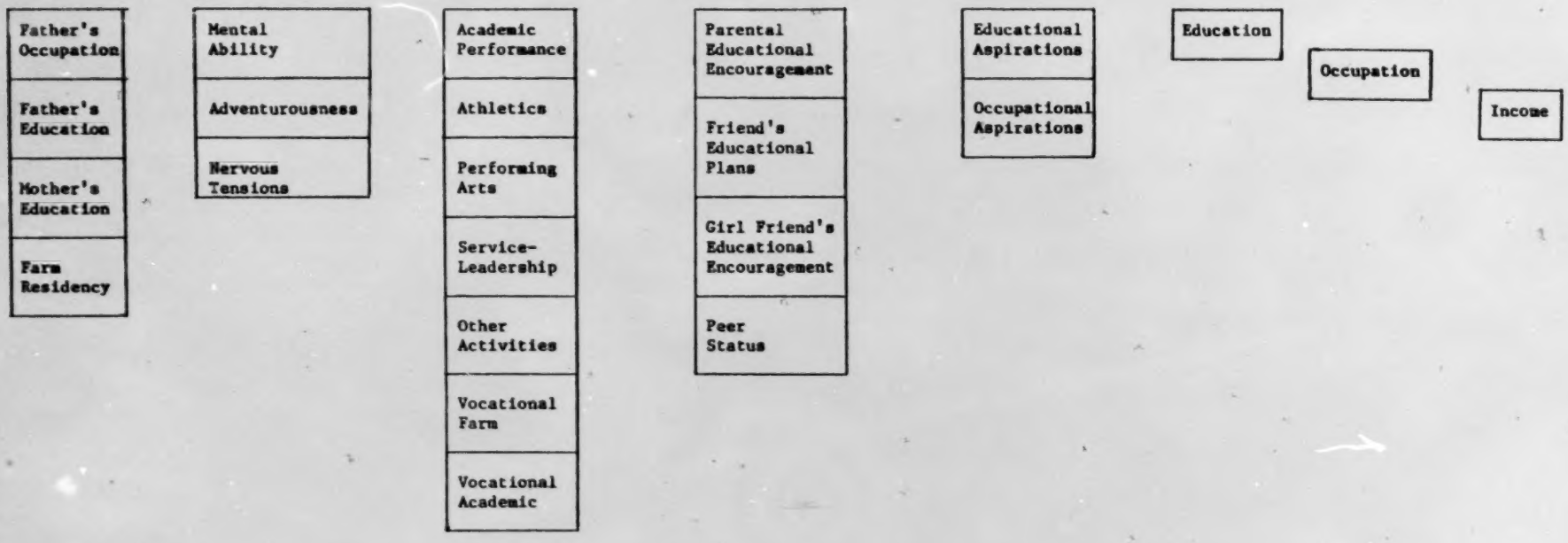

TABLE 1

ZERO-ORDER CORRELATIONS, MEANS AND STANDARD DEVIATIONS FOR ALL VARIABLES (DECIMALS OMITTED).

VARIABLES		FOCC	FED	MED	FARM	MA	ADV	NER	AP	ATH	PART	SER	OTH	VOCFM	VOCAC	PEER	PEDE	FEDP	GEDE	EDASP	OCASP	ED	OCC	EARN
Background Statuses	FOCC																							
	FED	461																						
	MED	311	347																					
	FARM	-387	024	103																				
Individual Characteristics	MA	241	217	212	-072																			
	ADV	137	112	131	076	108																		
	NER	048	-082	-156	-175	-082	-288																	
Peer Group Identifications	AP	199	206	279	030	478	134	-189																
	ATH	097	007	065	-051	124	224	106	118															
	PART	100	207	252	082	213	145	-034	317	035														
	SER	189	130	167	-007	185	157	-017	252	208	221													
	OTH	059	031	049	-037	028	059	-032	046	-018	122	-042												
	VOCFM	-291	-071	-050	442	-190	039	-066	-179	-138	-019	-046	-063											
	VOCAC	183	201	243	-005	221	147	-017	315	091	283	190	-008	-041										
Significant Other Influences and Peer Status	PEER	053	110	154	129	210	496	-353	337	197	126	212	-021	007	164									
	PEDE	276	288	253	-069	263	225	-063	292	178	133	120	001	-074	196	223								
	FEDP	194	192	267	072	343	177	-074	377	209	256	181	-043	-181	325	230	341							
	GEDE	066	157	104	016	198	117	-027	283	207	266	098	134	019	253	158	260	242						
Aspirations	EDASP	349	353	345	007	400	292	-099	542	244	320	266	100	-163	322	225	465	452	379					
	OCASP	285	329	315	-056	441	244	-117	532	222	289	254	097	-250	295	257	455	444	244	679				
Attainments	ED	311	346	356	-015	419	259	-119	621	228	322	244	189	-172	349	252	361	487	371	700	639			
	OCC	308	240	233	-113	362	130	-061	539	182	272	195	148	-274	302	150	325	413	314	554	570	658		
	EARN	140	177	230	048	183	152	006	200	168	207	201	081	064	248	149	191	221	175	255	248	291	265	
	$\bar{X}$	32.64	2.27	2.56	.174	20.68	15.35	10.66	2.03	.654	.317	.138	.206	.299	.215	14.85	6.37	2.50	1.42	1.15	36.19	13.48	47.05	12550
	S.D.	21.78	1.35	1.25	.379	5.14	4.82	4.65	.84	.476	.466	.345	.405	.458	.411	3.60	1.72	1.96	.61	1.26	12.56	2.50	25.21	5434

[a]FOCC father's occupation; FED father's education; MED mother's education; FARM parents are farmers; MA mental ability; ADV adventurous; NER nervous tensions; AP academic performance; ATH athletics; PART performing arts; SER service-leadership; OTH other activities; VOCFM vocational farm; VOCAC vocational academic; PEER peer status; PEDE parental educational encouragement; FEDP friend's educational plans; GEDE girl friend's educational encouragement; EDASP educational aspirations; OCASP occupational aspirations.

TABLE 2

STANDARDIZED REGRESSION COEFFICIENTS AND COEFFICIENTS OF DETERMINATION FOR ANTECEDENTS OF SOCIOECONOMIC ATTAINMENTS (DECIMALS OMITTED)

VARIABLES[a]		MA	ADV	NER	AP	ATH	PART	SER	OTH	VOCFM	VOCAC	PEER	PEDE	FEDP	GEDE	EDASP	OCASP
Background	FOCC	*158	*171	049	085	033	-020	*137	033	-107	064	-048	095	079	-067	*116	-026
Statuses	FED	077	-006	-022	-017	-086	080	-026	-012	016	042	017	*143	-026	*135	075	*122
	MED	*124	067	-*145	*146	077	*168	097	039	-042	*160	-007	066	087	-084	035	016
	FARM	-025	*135	-*141	056	-023	068	044	-035	*393	015	048	-067	*162	-054	069	-016
Individual	MA				*422	*104	*162	*131	005	-*135	*156	043	095	*153	050	062	*126
Characteristics	ADV				021	*264	*112	*123	047	043	*110	*378	*140	058	006	*153	*087
	NER				-122	*190	057	043	021	005	055	-*201	012	-001	002	000	-018
Peer Group	AP											*210	*162	*138	*178	*284	*261
Identifications	ATH											*094	*107	*115	*194	072	069
	PART											-034	-013	089	*151	044	050
	SER											078	-034	-002	-039	057	061
	OTH											-046	-027	-077	*117	047	070
	VOCFM											005	052	-157	*112	-044	-*114
	VOCAC											023	043	-167	*142	027	035
Significant	PEER															-*116	-032
Other	PEDE															*187	*216
Influences and	FEDP															*123	*135
Peer Status	GEDE															*139	-018
	R^2	083	042	051	283	101	111	081	008	233	109	378	209	293	199	540	493

[a] FOCC father's occupation; FED father's education; MED mother's education; FARM parents are farmers; MA mental ability; ADV adventurous; NER nervous tensions; AP academic performance; ATH athletics; PART performing arts; SER service-leadership; OTH other activities; VOCFM vocational farm; VOCAC vocational academic; PEER peer status; PEDE parental educational encouragement; FEDP friend's educational plans; GEDE girl friend's educational encouragement; EDASP educational aspirations; OCASP occupational aspirations.

* Absolute value of coefficient is at least twice as large as the standard error and the relationship is defined as statistically significant.

TABLE 3

STANDARDIZED REGRESSION COEFFICIENTS AND COEFFICIENTS OF DETERMINATION FOR THE RECURSIVE STRUCTURAL MODELS OF EDUCATION, OCCUPATION AND EARNINGS (DECIMALS OMITTED)

VARIABLES[a]		EDUCATION					OCCUPATION						EARNINGS						
Background Statuses	FOCC	*193	*116	060	045	016	*219	*166	*108	091	081	076	094	042	032	025	027	026	016
	FED	*138	*114	*126	*113	071	067	046	053	033	-004	-029	037	030	030	023	014	008	011
	MED	*217	*165	061	050	037	*132	091	-010	-021	-029	-042	*174	*163	109	102	101	097	103
	FARM	034	017	003	-017	-035	-043	-047	-020	-031	-036	-024	066	065	004	-005	-004	000	003
Individual Characteristics	MA		*313	*088	051	012		*281	064	031	-006	-010		*129	071	054	046	044	046
	ADV		*170	*106	*115	056		058	008	019	-021	-040		*128	056	037	031	025	031
	NER		-012	013	-001	002		-020	004	-014	-010	-011		091	062	066	067	067	068
Peer Group Identifications	AP			*438	*399	*274			*386	*351	*254	*158			051	025	007	-019	-040
	ATH			*116	075	043			087	049	024	009			*112	093	088	084	083
	PART			048	019	-009			068	036	019	023			066	058	054	055	052
	SER			015	026	-001			005	018	-003	-003			085	086	082	082	082
	OTH			*147	*148	*122			*107	*105	083	040			074	080	075	063	058
	VOCFM			-021	-003	029			-*124	-115	-083	-*093			*134	*141	*148	*146	*158
	VOCAC			*099	050	036			*104	062	050	038			*132	*114	*112	*108	*103
Significant Other Influences and Peer Status	PEER				-069	-029				-086	-064	-053				024	026	028	035
	PEDE				038	-052				081	007	025				045	030	035	032
	FEDP				*199	*141				*158	*111	061				072	063	049	041
	GEDE				*108	*070				*103	089	064				022	023	016	008
Aspirations	EDASP					*289					*131	029					-001	-029	-033
	OCASP					*168					*226	*167					068	052	030
Attainments	ED											*353						097	052
	OCC																		*129
	R^2	185	311	530	576	647	119	199	394	437	482	526	063	096	164	172	174	177	185

[a]FOCC father's occupation; FED father's education; MED mother's education; FARM parents are farmers; MA mental ability; ADV adventurous; NER nervous tnesions; AP academic performance; ATH athletics; PART performing arts; SER service-leadership; OTH other activities; VOCFM vocational farm; VOCAC vocational academic; PEER peer status; PEDE parental educational encouragement; FEDP friend's educational plans; GEDE girl friend's educational encouragement; EDASP educational aspirations; OCASP occupational aspirations; ED education; OCC occupation; EARN earnings.

*Absolute value of coefficient is at least twice as large as the standard error and the relationship is defined as statistically significant.